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EXAMINER
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CHIN, RANDALL E

ART UNIT	PAPER NUMBER
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3723

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12/02/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/820,562	<b>Applicant(s)</b> BRAUN ET AL.	
	<b>Examiner</b> Randall Chin	<b>Art Unit</b> 3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01/07/2008 and 04/28/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27, 29-84 and 96-131 is/are pending in the application.
- 4a) Of the above claim(s) 20, 21, 34, 37-84, 96-116 and 121-131, is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19, 22-27, 29-33, 35, 36 and 117-120 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11012007; 03182008</u> .                                      | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Reissue Application***

1. Claims 12-27, 29-84 and 96-131 are rejected as being based upon a defective reissue declaration under 35 U.S.C. 251. See 37 CFR 1.175.

The nature of the defect is that the error identified in the reissue declaration filed 04/08/2004 is not an error correctible by a reissue under 35 U.S.C. 251. Applicant has not specified an error that satisfies the requirement of the reissue statute that the error to be corrected renders the original patent wholly or partly inoperative or invalid.

Applicant has proposed to add new claims 12-27, 29-84 and 96-131 that are narrower than claim 1, without specifying that claim 1 represents a claim that is of a scope that is either more than, or less than, patentee had a right to claim. Original patent claim 1, remains in the current reissue application without amendment. Therefore the broadest claim scope of the patent remains the same. Further, claim 1 is an open "comprising type" claim, and clearly protects the subject matter recited in reissue application claims 12-27, 29-84 and 96-131, the sole change to the patent claims that is proposed in the reissue application. There is no allegation by Applicant that claim 1 is in any way unpatentable. Accordingly, since claim 1 clearly covers the invention recited in claims 12-27, 29-84 and 96-131, the patent has not been alleged to be wholly or partly invalid by inclusion of claims that are too broad in scope (nor any other "error" that satisfies the reissue statute), and can not properly be alleged to be inoperative to protect the

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disclosed invention. In regard to this rejection, attention is invited to **MPEP, section 1402.**

2. In view of the previously made election of species requirement, the original patent claims, namely Figs. 2, 3, are deemed to be constructively elected. More specifically, the tuft of bristles arrangement **(and not the alternative rubber or plastic fin species arrangement)** has been deemed to be constructively elected. Accordingly, dependent claim 20 (as well as claim 21 since it depends on claim 20) and independent claim 130 have been withdrawn from consideration. **Please refer to Paragraphs 2. and 3. in the Office Action dated 07/05/2007.**

In addition, in view of the previously made election of species requirement, the invention defined by original patent claims 1-11, and namely Figs. 2, 3, are deemed to be constructively elected. More specifically, the arrangement where the tuft of bristles is supported for rotation **about only one axis** has been deemed to be constructively elected. Accordingly, since independent claim 37, lines 6-9, recites “wherein the second tooth cleaning element extends from a socket and wherein the second tooth cleaning element is rotatably disposed within the socket and wherein the socket defines a range of motion for the second tooth cleaning element along a first direction that is greater than that along a second direction orthogonal to the first direction”, independent claim 37 and 49 (as well as dependent claims 38-48, 107, 112 and 121-125) have all been withdrawn from consideration as being drawn to a non-elected invention. **Please refer to Paragraphs 2. and 3. in the Office Action dated 07/05/2007.**

In addition, in view of the previously made election of species requirement, the invention defined by original patent claims 1-11, and namely Figs. 2, 3, are deemed to be constructively elected. More specifically, the arrangement where the tuft of bristles is supported for rotation **about only one axis** has been deemed to be constructively elected. Accordingly, since independent claim 50, lines 9-10, recites "wherein the socket defines a range of motion for the tooth cleaning element along a first direction that is greater than that along a second direction orthogonal to the first direction", independents claim 50 and 62 (as well as dependent claims 51-61, 108, 113 and 126) have all been withdrawn from consideration as being drawn to a non-elected invention.

**Please refer to Paragraphs 2. and 3. in the Office Action dated 07/05/2007.**

In addition, in view of the previously made election of species requirement, the invention defined by original patent claims 1-11, and namely Figs. 2, 3, are deemed to be constructively elected. More specifically, the arrangement where the tuft of bristles is supported for rotation **about only one axis** has been deemed to be constructively elected. Accordingly, since independent claim 63, lines 10-11, recites "wherein the socket defines a range of motion for the tooth cleaning element along a first direction that is greater than that along a second direction orthogonal to the first direction", independents claim 63 and 74 (as well as dependent claims 64-73, 109, 114 and 127) have all been withdrawn from consideration as being drawn to a non-elected invention.

**Please refer to Paragraphs 2. and 3. in the Office Action dated 07/05/2007.**

In addition, in view of the previously made election of species requirement, the invention defined by original patent claims 1-11, and namely Figs. 2, 3, are deemed to

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be constructively elected. More specifically, the arrangement where the tuft of bristles is supported for rotation **about only one axis** has been deemed to be constructively elected. Accordingly, since independent claim 75, lines 6-7, recites “wherein the socket defines a range of motion for the tooth cleaning element along a first direction that is greater than that along a second direction orthogonal to the first direction”, independent claims 75 and 84 (as well as dependent claims 76-83, 110, 115 and 128) have all been withdrawn from consideration as being drawn to a non-elected invention. **Please refer to Paragraphs 2. and 3. in the Office Action dated 07/05/2007.**

In addition, in view of the previously made election of species requirement, the invention defined by original patent claims 1-11, and namely Figs. 2, 3, are deemed to be constructively elected. More specifically, the arrangement where the tuft of bristles is supported for rotation **about only one axis** has been deemed to be constructively elected. Accordingly, since independent claim 96, lines 13-14, recites “wherein the socket defines a range of motion for the tooth cleaning element along a first direction that is greater than that along a second direction orthogonal to the first direction”, independent claim 96 (as well as dependent claims 97-106, 111, 116 and 129) have all been withdrawn from consideration as being drawn to a non-elected invention. **Please refer to Paragraphs 2. and 3. in the Office Action dated 07/05/2007.**

In addition, in view of the previously made election of species requirement, the invention defined by original patent claims 1-11, and namely Figs. 2, 3, are deemed to be constructively elected. More specifically, the arrangement where the tuft of bristles is supported for rotation **about only one axis** has been deemed to be constructively

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elected. Accordingly, since independent claim 131, lines 5-8, recites "a second group of a plurality of tooth cleaning elements extending from the head, wherein each element in the second group is pivotally secured to the head to provide a range of motion along a first direction that is greater than that along a second direction orthogonal to the first direction", independent claim 131 has been withdrawn from consideration as being drawn to a non-elected invention. **Please refer to Paragraphs 2. and 3. in the Office Action dated 07/05/2007.**

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 5, 8, 9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 5-76416 (hereinafter Japan '416).

Japan '416 discloses in Figs. 1, 2 and 3, for example, a toothbrush comprising a handle, a head extending from the handle, and a plurality of tufts 6, 6 of bristles extending from the head, each tuft of bristles being supported for rotation about only one axis, each tuft of bristles being rotatable independent of the other tuft(s) of bristles. Note, that notwithstanding the fact that Fig. 2 of Japan '416 shows two tufts of bristles on each "bearing" 5, one can pick and choose just a single tuft of bristles on each "bearing" 5 to meet the recited language of claim 1.

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As for claim 5, each tuft includes at its non-brushing end a "bearing" 5 (Fig. 2) which is substantially cylindrical in shape in its major portion, each bearing being secured in its own hollow space within the head, each bearing allowing rotation of its respective tuft.

As for claim 8, a portion of the head is deemed to limit rotation or range of rotation of each tuft (Figs. 2 and 3).

As for claim 9, the tufts are deemed capable of being rotated by contact with a portion of an oral cavity. Further, such a recitation can merely depend on how one holds or orients the toothbrush with respect to the oral cavity or how one manipulates the toothbrush itself during brushing.

As for claim 11, the axis about which each tuft is rotatable is substantially perpendicular to a long axis of the tuft (Fig. 2).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '416.

As for claims 2 and 3 reciting the range of rotation of each tuft being a range of rotation of "about 60 degrees" or "about 30 degrees to either side of the vertical



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position", it appears that the tufts clearly rotate about 60 degrees or about 30 degrees to either side of the vertical position viewing Fig. 3 of Japan '416 (see phantom lines).

Further, the tufts are capable of having a range of rotation of "about" 60 degrees or "about" 30 degrees to either side of the vertical position. Moreover, even assuming arguendo that the tufts do not have a range of rotation of about 60 degrees or about 30 degrees to either side of the vertical position, one skilled in the art would find it obvious to optimally choose such a claimed range or value for the purpose of enhancing brushing effectiveness such as in interproximal areas.

7. Claims 4, 12-19, 22-27, 29, 32, 33, 35, 36, 117 and 120 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '416 in view of DE 198 17 704 (hereinafter DE '704).

Japan '416 discloses all of the recited subject matter as set forth above with the exception of at least one tooth cleaning element which cannot be rotated. DE '704 discloses in Figs. 1 and 2 a toothbrush comprising at least one tooth cleaning element 8 (Fig. 2) which cannot be rotated. It would have been obvious to one of ordinary skill in the art to have provided the Japan '416 toothbrush with at least one tooth cleaning element which cannot be rotated as taught by DE '704 to increase the overall brushing effectiveness of the toothbrush by permitting the cleaning of exterior tooth surfaces.

As for claim 12, Japan '416 teaches in Figs. 1, 2 and 3, for example, an apparatus comprising a toothbrush head 3, and a "second group" of a plurality of tooth cleaning elements 6, 6 extending from the head, each of the elements in the "second

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group” is supported for rotation about only one axis (Fig. 2). Japan '416 discloses all of the recited subject matter as set forth above with the exception of each element in the second group being independently rotatable with respect to one another and any other tooth cleaning element on the toothbrush head. Japan '416 teaches various embodiments of a toothbrush with pivoting bristle tuft configurations, namely an embodiment shown in Figs. 1, 2 and 3 as well as another embodiment shown in Figs. 4, 5 and 6. Clearly, as shown in the other embodiment of Figs. 4, 5 and 6, the pivoting bristle tufts are each single bristle tufts independently rotatable with respect to one another and any other tooth cleaning element on the toothbrush head. It is the Examiner's position that given such a teaching and suggestion, one of ordinary skill in the art would find it obvious to modify the Japan '416 embodiment shown in Figs. 1, 2 and 3 such that there is only a single bristle tuft (**instead** of two bristle tufts as shown in Fig. 2) on the pivoting structure 5 as suggested in the Figs. 4, 5 and 6 embodiment to simply vary the general brushing and/or interproximal capabilities and/or brushing surface area of the toothbrush. Further, one of ordinary skill in the art would find it obvious to simply increase or decrease the number of bristle tufts on the pivoting structure 5 of the toothbrush in order to yield optimal, desired brushing characteristics and depending on the particular brushing operation at hand. Additionally, Japan '416 discloses all of the recited subject matter as set forth above with the exception of a “first group” of tooth cleaning elements extending from the head and wherein each of the elements of the first group is nonrotatable. DE '704 discloses in Figs. 1 and 2 a toothbrush comprising a “first group” of tooth cleaning elements 8, 8 extending from the

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head and wherein each of the elements of the “first group” is nonrotatable. It would have been obvious to one of ordinary skill in the art to have provided the Japan '416 toothbrush with a “first group” of tooth cleaning elements extending from the head and wherein each of the elements of the first group is nonrotatable as taught by DE '704 to increase the overall brushing effectiveness and overall brushing surface area of the toothbrush. In the modified Japan '416 toothbrush, the elements within each of the groups are of a common “type” and the “type” of elements in the first group (i.e., size wise) being different from the “type” of elements in the second group (i.e., size wise).

As for claim 13, all of the tooth cleaning elements of the toothbrush are in the first and second group.

As for claim 14, the first group includes a plurality of tooth cleaning elements (Fig. 2 of DE '704).

As for claim 15, each of the elements in the second group is adjacent to at least one of the elements in the first group.

As for claim 16 reciting that the interproximal residence time of elements in the second group is about 1.6 times or greater than the interproximal residence time of the elements in the first group, it should be noted that the length of the elements in the second group is longer than the length of bristles in the first group (Japan '416 as modified by DE '704). Thus, it would have been obvious to one of ordinary skill to have provided that the interproximal residence time of elements in the second group is about 1.6 times or greater (if not already) than the interproximal residence time of the

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elements in the first group through an optimization process to ensure adequate cleaning of interproximal spaces in the oral cavity.

As for claim 17, the elements in the second group are longer than the elements in the first group (Japan '416 as modified by DE '704).

As for claim 18, in Japan '416, the elements in the second group are deemed made of polymer.

As for claim 19, each of the elements in the second group is a tuft of bristles.

As for claim 22, the apparatus of Japan '416 further comprises a handle 1, and wherein the head 3 extends from the handle 1.

As for claim 23, the axis about which each element in the second group is rotatable is substantially perpendicular to a long axis of the element (Figs. 2 and 3 of Japan '416).

As for claim 24, the elements in the first group are free of spring bias tending to rotate the elements after deflection (Japan '416 as modified by DE '704).

As for claim 117, the type of elements in the first group is structurally different (i.e., size wise) from the type of elements in the second group.

As for claim 120, the elements in the first group are rigidly secured to the toothbrush head (Japan '416 as modified by DE '704).

As for claim 25, Japan '416 teaches in Figs. 1, 2 and 3, for example, an apparatus comprising a toothbrush head 3, and a plurality of tufts of bristles 6, 6 extending from the head, each tuft of bristles being supported for rotation about only one axis (Fig. 2). Japan '416 discloses all of the recited subject matter as set forth

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above with the exception of each tuft of bristles being rotatable independent of all other tuft(s) of bristles on the toothbrush head. Japan '416 teaches various embodiments of a toothbrush with pivoting bristle tuft configurations, namely an embodiment shown in Figs. 1, 2 and 3 as well as another embodiment shown in Figs. 4, 5 and 6. Clearly, as shown in the other embodiment of Figs. 4, 5 and 6, the pivoting bristle tufts are each single bristle tufts independently rotatable with respect to one another and any other tooth cleaning element on the toothbrush head. It is the Examiner's position that given such a teaching and suggestion, one of ordinary skill in the art would find it obvious to modify the Japan '416 embodiment shown in Figs. 1, 2 and 3 such that there is only a single bristle tuft (**instead** of two bristle tufts as shown in Fig. 2) on the pivoting structure 5 as suggested in the Figs. 4, 5 and 6 embodiment to simply vary the general brushing and/or interproximal capabilities and/or brushing surface area of the toothbrush. Further, one of ordinary skill in the art would find it obvious to simply increase or decrease the number of bristle tufts on the pivoting structure 5 of the toothbrush in order to yield optimal, desired brushing characteristics and depending on the particular brushing operation at hand. Additionally, Japan '416 discloses all of the recited subject matter as set forth above with the exception of at least one tooth cleaning element which cannot be rotated. DE '704 discloses in Figs. 1 and 2 a toothbrush comprising a tooth cleaning element 8 which cannot be rotated. It would have been obvious to one of ordinary skill in the art to have provided the Japan '416 toothbrush with at least one tooth cleaning element which cannot be rotated as taught

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by DE '704 to increase the overall brushing effectiveness and overall brushing surface area of the toothbrush.

As for claims 26 and 27 reciting the range of rotation of each tuft having a range of rotation of "about 60 degrees" or "about 30 degrees to either side of the vertical position", respectively, it appears that the tufts clearly rotate about 60 degrees or about 30 degrees to either side of the vertical position viewing Fig. 3 of Japan '416 (see phantom lines). Further, the tufts are capable of having a range of rotation of "about" 60 degrees or "about" 30 degrees to either side of the vertical position. Moreover, even assuming arguendo that the tufts do not have a range of rotation of about 60 degrees or about 30 degrees to either side of the vertical position, one skilled in the art would find it obvious to optimally choose such a claimed range or value for the purpose of enhancing brushing effectiveness such as in interproximal areas.

As for claim 29, in Japan '416, each tuft includes at its non-brushing end a "bearing" 5 (Fig. 2) which is substantially cylindrical in shape in its major portion, each bearing being secured in its own hollow space within the head, each bearing allowing rotation of its respective tuft 6.

As for claim 32, a portion of the head is deemed to limit rotation of each tuft (Figs. 2 and 3).

As for claim 33, the tufts are deemed capable of being rotated by contact with a portion of an oral cavity. Further, such a recitation can merely depend on how one holds or orients the toothbrush with respect to the oral cavity or how one manipulates the toothbrush itself during brushing.

As for claim 35, the axis about which each tuft is rotatable is substantially perpendicular to a long axis of the tuft (Fig. 2 of Japan '416).

As for claim 36, the apparatus of Japan '416 further comprises a handle 1 (Fig. 1).

8. Claims 118 and 119 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '416 in view of DE '704 as applied to claim 12 above, and further in view of Flewitt 5,896,614 (hereinafter Flewitt).

The patent to Flewitt discloses in Fig. 7 an apparatus wherein the type of elements in a first group 14, 15, 16 is structurally and compositionally different from the type of elements in a second group 12, 13. It would have been obvious to one of ordinary skill in the art to have provided the modified Japan '416 apparatus with a type of elements in a first group being structurally and compositionally different from the type of elements in a second group as suggested by Flewitt to increase the overall brushing and/or massaging effectiveness of the toothbrush apparatus.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '416 in view of Grusin 2,263,802 (hereinafter Grusin).

Japan '416 discloses all of the recited subject matter as set forth above with the exception of the head being made of at least two pieces which are joined together to secure the bearing within the head. The patent to Grusin teaches in Figs. 1, 3, 4 and 5 a toothbrush comprising a head 2 being made of at least two pieces 6, 7 which are joined

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together to secure a bearing within the head 2 (p. 1, col. 2, lines 20-28). It would have been obvious to one of ordinary skill in the art to have modified the Japan '416 head such that it is made of at least two pieces which are joined together as taught by Grusin to more securely clamp or secure the bearing within the head.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '416 in Claim view of Hokett 2,486,847 (hereinafter Hokett).

Japan '416 discloses all of the recited subject matter as set forth above with the exception of a viscous substance being provided in each hollow space in the head to provide some resistance to rotation of the tufts. Hokett teaches the concept in Figs. 2 and 4 of providing for a viscous substance (e.g., liquid soap or oil as recited in col. 2, lines 30-32) being provided in the head which would provide some resistance to rotation to tufts 16. It would have been obvious to one of ordinary skill in the art to have provided the Japan '416 toothbrush with a viscous substance in the head as taught by Hokett provided in each hollow space which would provide some resistance to rotation of the tufts.

11. Claims 1, 8, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Germany 1 210 409 (hereinafter Germany '409).

With respect to claim 1, Germany '409 discloses in Fig. 2, for example, a brush comprising a backing or "handle" 1, a "head" 2 extending from the handle, and a plurality of tufts of bristles (three tufts shown in Fig. 2) extending from the head, each



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tuft of bristles being supported for rotation about only one axis, each tuft of bristles being rotatable independent of the other tuft(s) of bristles.

As for claim 1 reciting a "toothbrush" in the preamble, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

As for claim 8, a portion of the head is deemed to limit rotation of each tuft.

As for claim 10, each tuft includes at its non-brushing end a living hinge 5, each living hinge 5 being "secured partially within the head", each living hinge allowing rotation of its respective tuft.

As for claim 11, the axis about which each tuft is rotatable is substantially perpendicular to a long axis of the tuft (Fig. 2).

12. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Germany '409.

As for claim 2 reciting the range of rotation of each tuft being a range of rotation of "about 60 degrees", it appears from Fig. 2 that the tufts clearly rotate "about" 60 degrees (see phantom lines). Further, the tufts are capable of having a range of rotation of "about" 60 degrees. Moreover, even assuming arguendo that the tufts do not have a range of rotation of about 60 degrees, one skilled in the art would find it obvious to

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optimally choose such a claimed range for the purpose of enhancing brushing effectiveness.

13. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '416 in view of DE '704 as applied to claims 25 and 29 above, and further in view of Grusin.

The patent to Grusin teaches in Figs. 1,3, 4 and 5 a toothbrush comprising a head 2 being made of at least two pieces 6, 7 which are joined together to secure a bearing within the head 2 (p. 1, col. 2, lines 20-28). It would have been obvious to one of ordinary skill in the art to have provided the modified Japan '416 head with at least two pieces which are joined together as taught by Grusin to more securely clamp or secure the bearing within the head.

14. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '416 in view of DE '704 as applied to claims 25 and 29 above, and further in view of Hokett.

Hokett teaches the concept in Figs. 2 and 4 of providing for a viscous substance (e.g., liquid soap or oil as recited in col. 2, lines 30-32) being provided in the head which would provide some resistance to rotation to tufts 16. It would have been obvious to one of ordinary skill in the art to have provided the modified Japan '416 toothbrush with a viscous substance in the head as taught by Hokett provided in each hollow space which would provide some resistance to rotation of the tufts.

### ***Conclusion***

15. Applicant's arguments filed 01/07/2008 have been fully considered but they are not persuasive.

With respect to independent claim 1, Applicant argues that Fig. 2 of Japan '416 does not show "each tuft of bristles being rotatable independent of the other tuft(s) of bristles" because each tuft of bristles in Fig. 2 is paired with a second tuft of bristles on a *common* cylindrical rotation element and that there is no *independent* rotation (emphasis added by Applicant). Applicant further asserts that the Examiner's rejection is based on an overbroad reading of the claim whereby the claimed "other tuft(s) of bristles," to which the independent rotation is compared, may refer to fewer than all of the tufts on the brush head.

After careful consideration of all of Applicant's arguments with respect to claim 1, the Examiner is unpersuaded by these arguments and has maintained the 35 U.S.C. 102 rejection of claim 1 (as well as dependent claims 2-11) based on Japan '416 and is deemed to have applied the broadest, reasonable interpretation of the claims. The preamble of claim 1 uses the transitional term "comprising", which is inclusive or open-ended and does not exclude additional, unrecited elements. Notwithstanding the fact that Fig. 2 of Japan '416 shows two tufts of bristles on each "bearing" 5, as already stated above, one can pick and choose just a single tuft of bristles on each bearing 5 to meet the recited language of claim 1. The fact that Japan '416 has been referenced in the instant specification at col. 1, lines 27-31, has been noted, however, does not take away from the rather broad language (as well as the use of inclusive or open-ended

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term "comprising" in the preamble) used in claim 1. The mere fact that Japan '416 has been noted in the specification does not render any type of language used for claim 1 allowable over such noted reference, especially when such language used for claim 1 is deemed broad and inclusive.

It should be noted that a different situation (i.e., claim scope) arises in independent claim 12, and which Applicant has amended, and which now recites that each of the elements in the second group is independently rotatable with respect to one another and **"any other tooth cleaning element on the toothbrush head"**. Similarly, a different situation (i.e., claim scope) arises in independent claim 25, and which Applicant has amended, and which now recites that each tuft of bristles being rotatable independent of **"all other tuft(s) of bristles on the toothbrush head"**. If such language of claim 1 were understood to refer to *all* of the other tooth cleaning elements on the brush, as Applicant alleges, then the claim could be amended in such manner similar to amended claims 12 or 25, to overcome any questions as to its scope and vagueness.

With respect to Applicant's arguments based on Germany '409 that claim 1 is directed to a "toothbrush", Germany '409 may not specifically teach a "toothbrush" but such disclosed **structure** could be used as such. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. There is nothing to prevent a user from utilizing the Germany '409 apparatus as a "toothbrush" for a human or any other small or large-sized living creature, for that

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matter. Any argument that the Germany '409 apparatus cannot satisfactorily brush one's teeth is unconvincing and unpersuasive. All of the recited structure of claim 1 is clearly met by Germany '409. Also, head could be a portion element 1 (Fig. 2) and the "handle" could be any distal end thereof (i.e., of element 1) which can be gripped or handled by a user.

For all of the above reasons, the rejection of claim 1 (and dependent claims 2-11) is deemed proper.

Applicant's arguments with respect to newly amended independent claims 12 and 25 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randall Chin whose telephone number is (571) 272-1270. The examiner can normally be reached on Monday through Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Randall Chin/  
Primary Examiner, Art Unit 3723

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